NON-PUBLIC?: N
ACCESSION #: 9308160120
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Dresden Nuclear Power Station, Unit PAGE: 1 OF 03

DOCKET NUMBER: 05000249

TITLE: Reactor Scram on Main Condenser Low Vacuum Due to
Indeterminate Cause
EVENT DATE: 07/10/93 LER #: 93-014-00 REPORT DATE: 08/04/93

OTHER FACILITIES INVOLVED: N/A DOCKET NO: 05000

OPERATING MODE: N POWER LEVEL: 093

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR SECTION:
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: J.J. Viney Ops Staff TELEPHONE: (815) 942-2920

COMPONENT FAILURE DESCRIPTION:
CAUSE: SYSTEM: COMPONENT: MANUFACTURER:
REPORTABLE NPRDS:

SUPPLEMENTAL REPORT EXPECTED: NO

ABSTRACT:

While in the process of performing DOP 4400-8 "Circulating Water flow Reversal", a Unit 3 Reactor Scram occurred on Main Condenser Low Vacuum at 0358 on July 10, 1993 with Unit 3 at 93% power and 996 psig pressure.

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END OF ABSTRACT

PLANT AND SYSTEM IDENTIFICATION:

General Electric-Boiling Water Reactor-2527 MWt rated core thermal power.

Nuclear Tracking System (NTS) tracking code numbers are identified in the

text as (XXX-XXX-XX-XXXXX)

EVENT IDENTIFICATION:

Reactor Scram on Main Condenser Low Vacuum Due to Indeterminate Cause

A. CONDITIONS PRIOR TO EVENT:

Unit: 3 Event Date: July 10, 1993 Event Time: 0358

Reactor Mode: Power Operation Mode Name: N Power
Level: 093
Reactor Coolant System (RCS) Pressure: 996 psig

B. DESCRIPTION OF EVENT:

At 0358 on July 10, 1993 with Unit 3 at 93% power level, reactor pressure at 990 psig and 735 MWe during performance of DOP 4400-8 "Circulating Water Flow Reversal), a Reactor Scram occurred on Main Condenser Low Vacuum. Approximately forty seconds after initiating the flow reversal, the Turbine Vacuum Low alarm was received on panel 903-7. Two seconds later the Condenser Vacuum Low alarm was received on panel 903-5. At this time the flow reversal sequence appeared to be complete. The Operator then attempted to reverse flow back to the original direction. However, vacuum continued to decrease and the Reactor scrammed on Low Vacuum. All rods fully inserted to "00" position.

C. APPARENT CAUSE OF EVENT:

This report is being submitted in accordance with 10CFR50.73(a)(2)(iv) which requires the reporting of any event or condition that resulted in manual or automatic actuation of any Engineered Safety Feature, including the Reactor Protection System.

The most probable cause for this Low Condenser Vacuum scram is initiating a Condenser Circulating Water flow reversal with a small margin to Condenser Vacuum alarms and trips. It is emphasized that the first flow reversal was initiated within procedurally acceptable backpressure margins. The occurrence of the Turbine Low Vacuum and Condenser Low Vacuum alarms prompted the NSO to reverse flow a second time, the condenser vacuums had not recovered from the first reversal, thus compounding the transient and probably led to exceeding the Condenser Low Vacuum scram setpoints in the "B" Condenser Hood. The procedure limits for condenser back-pressure and unit load to conduct the flow reversal were adhered to. The

procedure did not give adequate guidance to ensure sufficient margin was available to conduct the flow reversal, therefore procedure inadequacy was the root cause.

The unit was operating with 2 circulating water pumps rather than 3. In light of this, had the operating department questioned the requirements of the procedure, the scram may not of occurred.

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An internal self assessment of this scram is being conducted by the operating department to gain lessons learned that can be applied to all aspects of operations.

D. SAFETY ANALYSIS OF EVENT:

The safety significance of this Low Condenser Vacuum scram is considered minimal because the scram occured at required setpoint and design parameters were not exceeded.

E. CORRECTIVE ACTIONS:

Prior to Reactor Startup a temporary procedure change was in place on DOP 4400-8, Circulating Water Flow Reversal, delineating a minimum Condenser Vacuum on the Low Hood of 26 in. hg and 27 in. hg on the High Hood. A caution will also be added to warn the operator that reversing Condenser flow a second time during a vacuum transient when no equipment problems are present should not be attempted. (NTS # 249-529-93-00301)

F. PREVIOUS OCCURRENCES:

A computer search revealed 28 possible events, there was only one event that fit the category of this LER.

LER/Docket Numbers Title

DVR 86-74 Rx scram due to low vacuum.

G. COMPONENT FAILURE DATA:

Manufacturer Nomenclature Model Number Mfg. Part Number

Not Applicable

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ATTACHMENT 1 TO 9308160120 PAGE 1 OF 1

Commonwealth Edison
Dresden Nuclear Power Station
R.R. #1
Morris, Illinois 60450
Telephone 815/942-2920 August 09, 1993

GFSLTR 93-0037

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

License Event Report 93-014, Docket 050249 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10 CFR 50.73 (a)(2)(iv).

Gary F. Spedl
Station Manager
Dresden Station
GFS/slb

Enclosure

cc: J. Martin, Regional Administrator, Region III
NRC Resident Inspector's Office
File/NRC
File/Numerical

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